

ABSTRACT OF THE DISCLOSURE

There is the problem that when voltage changes occur in the battery used as a power supply, the amount of fuel injection also changes and the required amount of fuel injected cannot be obtained. The present invention provides: a fuel injector by which the desired amount of fuel injection can be obtained even when power voltage changes occur; and a control of controlling the fuel injector. To provide a fuel injector comprising a fuel injection valve, a power supply 103, a power voltage detection means 108, and a control unit 102 for controlling the fuel injection valve; wherein a reference value of a power voltage is set and the above-mentioned fuel injection valve is controlled so as to obtain the required ampere-turns by reducing the resultant inductance of the coil when a power voltage detection value is less than the above-mentioned reference value, and increasing the resultant inductance of the coil when the power voltage detection value is greater than the reference value.

[Selected Figure] Fig. 1